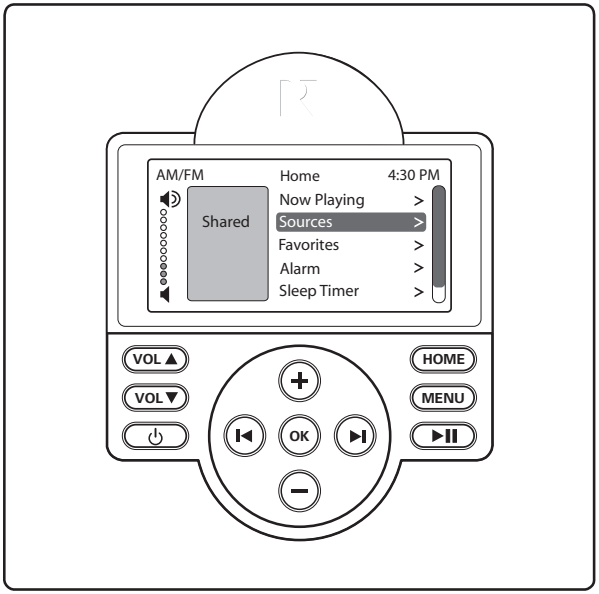
Russound



MDK-C5

Multiline Display Keypad
Russound User and Installation Manual

SAFETY INSTRUCTIONS

For your safety, please read and follow these precautions before installing or using this product:

1. Read instructions. Read and understand all the applicable instructions before installing or operating the product.
2. Retain instructions. Keep this manual in a convenient place for reference.
3. Heed warnings. Be aware and heed all warnings on the product and in the instructions.
4. Follow instructions. Install and use this product only as described in the instructions. Don't try to use this product in ways for which it wasn't designed.
5. Use indoors only. Don't expose this product to the weather or harsh environmental conditions such as continuous sunlight, excessive humidity, or rain.
6. Keep product dry. Don't use the product near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. Also, do not handle the product when your hands are wet or damp.
7. Use the right power source. Don't connect the product directly to electrical line voltage. Use only the power adapter provided with the product, described in the operating instructions, or as marked on the product.
8. Ground product properly. Make sure the product's means of grounding or polarization is not defeated.
9. Power cord protection. Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, receptacles, and the point where they exit from the appliance.
10. Keep product clean. From time to time, wipe off the product with a clean soft cloth. Don't use abrasive materials, thinners, alcohol or other chemical solvents or materials.
11. Avoid spills and foreign objects. Make sure liquids and objects don't get into the product enclosure through any openings.
12. Get professional service. Have the product serviced only by qualified service personnel when:
    - The power supply cord/plug has been damaged
    - Liquids spilled/objects have fallen into the product
    - The product has been exposed to rain
    - The product doesn't appear to operate normally
    - The product is damaged
13. Don't attempt to service the product yourself. Doing so will void the warranty.

If you have any questions, call Russound at 1.800.638.8055 or 603.659.5170.

Conforms to UL60065
Certified to CAN/CSA IEC60065

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Overview

The MDK-C5 keypad is a beautiful wall-mounted interface for the MCA-C5 controller and future C-series systems. It features a gray scale screen, menus and navigation buttons to easily find and control music sources and to make changes to system settings and room audio levels. The alarm and sleep timer add extra functionality.

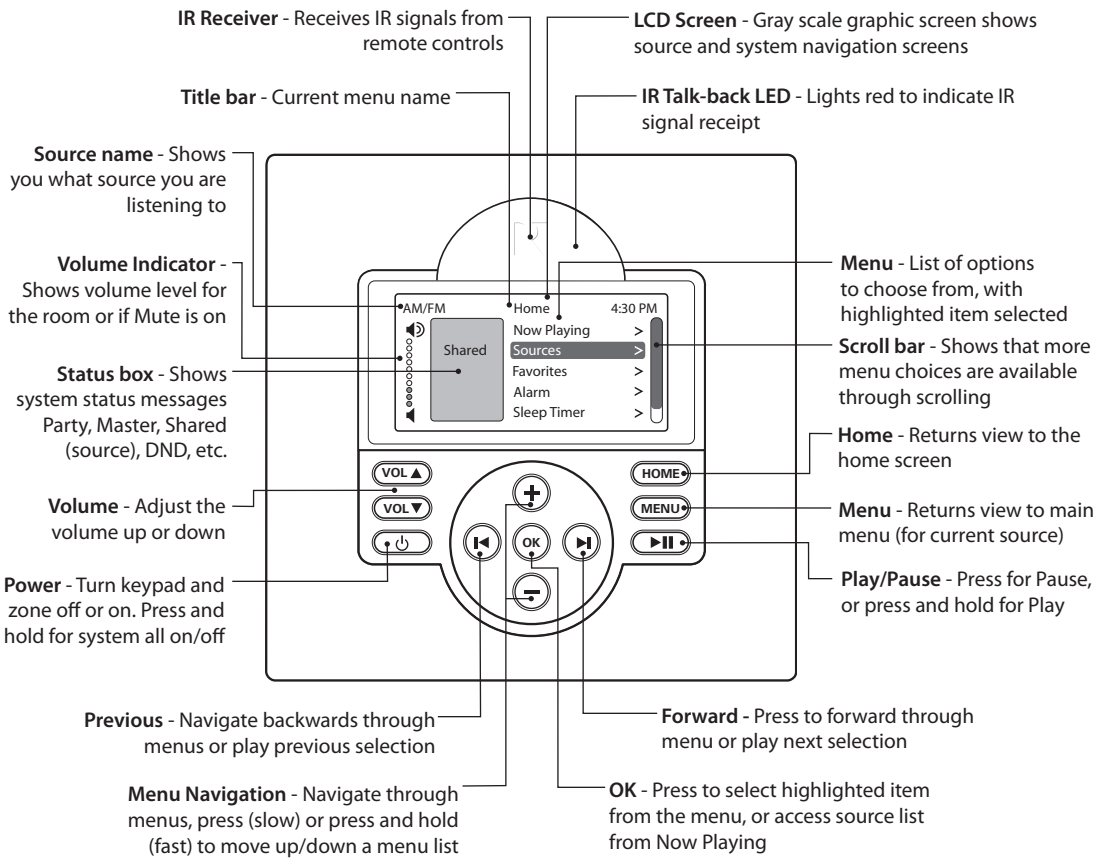
This double-gang keypad offers responsive hard buttons to access power on/off, music pause, volume up/down, and menu shortcuts. The OK button in the center activates a menu choice and the navigation buttons allow you to move through menus and lists, as well as provide source controls. The buttons' LED brightness is adjustable and can be dimmed at the owner's discretion. It also supports IR reception for use with a remote control.

The gray scale LCD screen displays real-time information such as Playlist, Channel, Station, Artist, Song Title, Genre, and more from the RNET audio sources.

The MDK-C5 is designed to control an MCA-C5 controller amplifier multiroom audio system as well as future C-series controllers. It controls Russound RNET sources, including the SMS3 Smart Media Server, iBridge™ Dock, and the ST2 Tuner with AM/FM and/or satellite radio.

Most controller and source setup functions are performed through SCS-C5 programming software; however, a few installation steps are completed through the MDK-C5 menus, including setting time and date, keypad brightness and contrast, and adjusting room audio properties. The MDK-C5's installation screen provides a gateway for online support for the system when needed.

KEYPAD FRONT


IR Receiver - Receives IR signals from remote controls
LCD Screen - Gray scale graphic screen shows source and system navigation screens
Title bar - Current menu name
IR Talk-back LED - Lights red to indicate IR signal receipt
Source name - Shows you what source you are listening to
Volume Indicator - Shows volume level for the room or if Mute is on
Menu - List of options to choose from, with highlighted item selected
Scroll bar - Shows that more menu choices are available through scrolling
Status box - Shows system status messages Party, Master, Shared (source), DND, etc.
Home - Returns view to the home screen
Volume - Adjust the volume up or down
Menu - Returns view to main menu (for current source)
Power - Turn keypad and zone off or on. Press and hold for system all on/off
Play/Pause - Press for Pause, or press and hold for Play
Previous - Navigate backwards through menus or play previous selection
Forward - Press to forward through menu or play next selection
Menu Navigation - Navigate through menus, press (slow) or press and hold (fast) to move up/down a menu list
OK - Press to select highlighted item from the menu, or access source list from Now Playing
AM/FM
Home
4:30 PM
Shared
Now Playing
Sources
Favorites
Alarm
Sleep Timer
VOL ▲
VOL ▼
HOME
MENU
OK

MDK-C5 Keypad (front)

Basic Operation

Turn on the zone - Press the power button on the keypad or press power on the SRC-C5 remote control to turn on the zone and hear music. The zone will default to the last playing source before being turned off. Press and hold the power button (when ON) to turn on all enabled keypads.

Turn off the zone - Press the power button on the keypad or press the power button on the SRC-C5 remote control to turn off the keypad and music. Press and hold the power button (when OFF) to turn off all other keypads.

Volume adjustments - Press the Volume up/down buttons on the side of the keypad, or press the VOL +/- button on the SRC-C5 remote control.

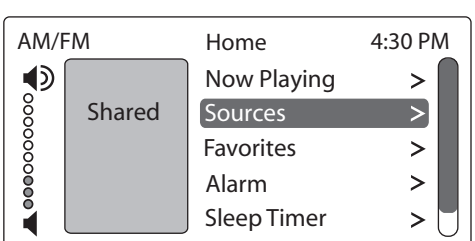
Mute Audio - Press the Mute button on the SRC-C5 remote control.

Main Menu - Sources

From the home screen, select "Sources." A list of available audio sources appears. Select a source, or press a numbered "Source" button on the SRC-C5 remote control.

Once selected, choose music from that source. Each source has its own menu and screens. Main menus list what is available: channels, genres, playlists, songs, or artists.

Shared - When you see "Shared" on the screen, what you are listening to is also playing in another room. If you change the selection (song, channel, playlist) *on that source*, the change will also happen in the other "Shared" room.



Main Menu - Favorites

Favorites - Save a source or a radio station/channel as a favorite.

Add new - Tune to the music source you want to save as a favorite. From the Favorites menu, select "Add New." Name the favorite using the +/- buttons to move through the alphabet. Press the OK button to save.

Edit name - Choose the favorite to rename and use the +/- buttons to scroll through the alphabet and the forward button to move to the next character.

Delete favorite - Choose the favorite to be deleted, press the OK button to delete.

Main Menu - Alarm

Set the keypad as an alarm clock and wake up to music. From the home screen menu, scroll to and select "Alarm" for the following options:

Alarm on/off - Activates alarm on or off. If an alarm is set a clock icon will appear on the keypad display.

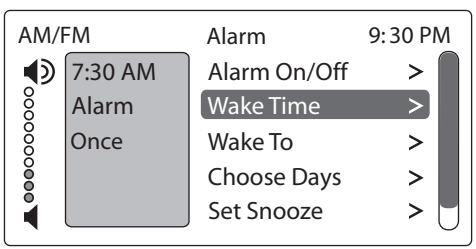
Wake time - Set the time for the alarm to go off.

Wake to - Choose the music source.

Choose days - Set the alarm to go off on weekdays, all days or just once.

Set snooze - Choose the interval (5 to 30 minutes) before the alarm goes off again.

Alarm level - Set the volume of the alarm.



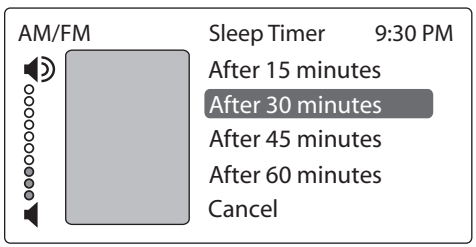
How to:

Turn off active alarm - Press the power button on the keypad or SRC-C5 remote.

Snooze - Press the play/pause button on the keypad or the pause button on the SRC-C5 remote control.

Main Menu - Sleep Timer

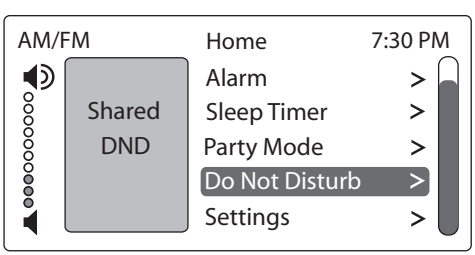
You can set the timer so the zone turns off in one of the following increments: 15, 30, 45, or 60 minutes.



Main Menu - Set Party Mode or DND

Party and Master - The keypad that shows Master has started a "party" and keypads that show Party are "attending." All rooms are listening to the same music, and only the Master can change the music. Volume control remains independent.

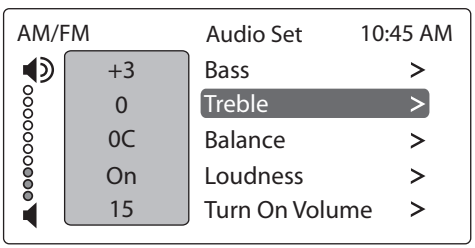
DND - Stands for Do Not Disturb. Someone in another room has chosen a source and locked out anyone else from changing it. That room also won't be disturbed by paging or a doorbell chime.



Main Menu - Settings

Audio

Adjust Settings - From the home screen, scroll to and select "settings," and choose "audio settings." You'll see items to adjust, such as bass, treble and balance. Each selection has its own screen and shows levels for real-time adjustments.

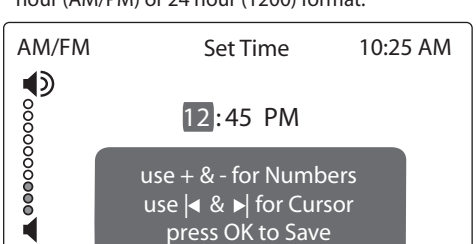


Clock

Set Time - From the Clock menu, select "Set Time." Press the +/- buttons to move through numbers. Press the |< or >| buttons to move the cursor and press OK to save.

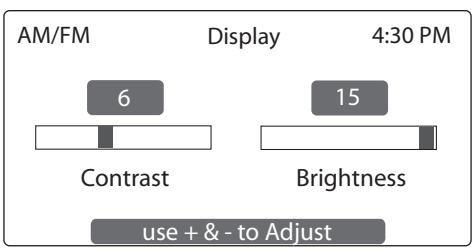
Set Date - From the Clock menu, select "Set Date." The date format is month/day/year. Press the +/- buttons to move through numbers. Press the |< or >| buttons to move the cursor, and press OK to save.

Clock Format - From the home menu, select "Settings," then "Clock." Choose "Clock Format," and select 12 hour (AM/PM) or 24 hour (1200) format.



Display

Adjust Settings - Set the contrast and brightness for the keypad display. Use the buttons to move the cursor to the desired level.

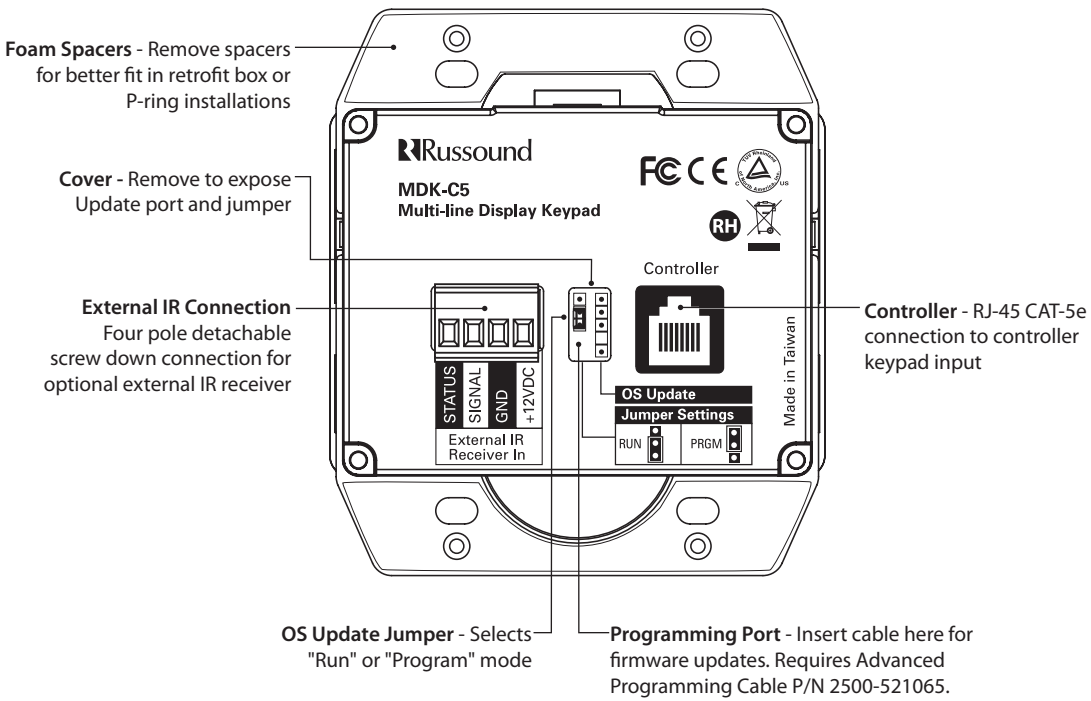


Installer Options

IR Enable/Disable - The default is Enabled. If an external IR receiver is used, the keypad IR receiver should be disabled. From the main menu, select "Settings," then "Installation", then IR Enable/Disable. Select "disable" and exit back to the menu.

Diagnostics - Options are provided for Display and Button tests. Selecting the Firmware option displays the keypad's firmware version.

KEYPAD REAR


Foam Spacers - Remove spacers for better fit in retrofit box or P-ring installations
Cover - Remove to expose Update port and jumper
External IR Connection Four pole detachable screw down connection for optional external IR receiver
Russound
MDK-C5
Multi-line Display Keypad
Controller
STATUS
SIGNAL
GND
+12VDC
External IR Receiver In
OS Update Jumper Settings
RUN
PRGM
Made in Taiwan
Controller - RJ-45 CAT-5e connection to controller keypad input
OS Update Jumper - Selects "Run" or "Program" mode
Programming Port - Insert cable here for firmware updates. Requires Advanced Programming Cable P/N 2500-521065.

MDK-C5 Keypad (rear)

MDK-C5 Color Plate Conversion

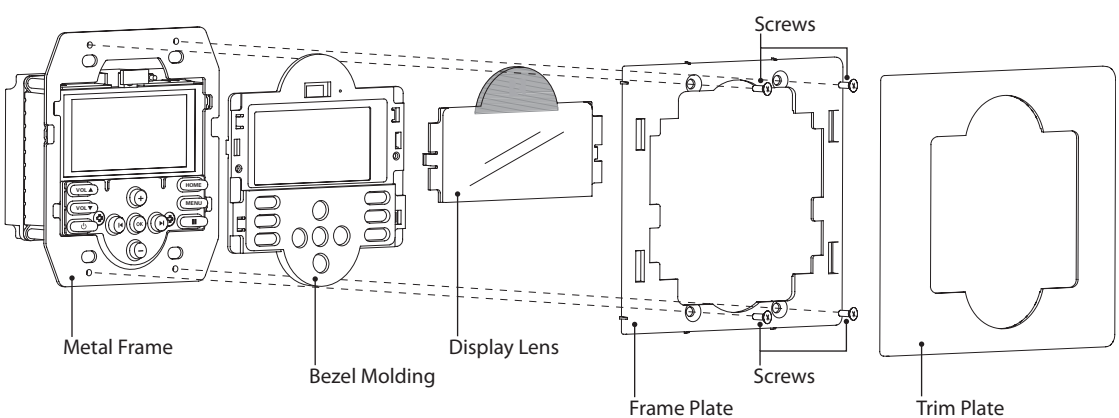
You will need both small straight and Phillips head screwdrivers to change the color plates on the keypad. The Bezel Molding and the Trim Plate will be switched for the new color plates.

1. If installed, remove the MDK-C5 keypad from the wall. Gently pull the Trim Plate off the mounting plate. Unscrew the unit from the electrical box, and disconnect the cable.
2. Unscrew the plastic Frame Plate. Keep the Frame Plate and screws for reattachment later.
3. Remove the Display Lens from the Bezel Molding by providing inward pressure to the two locking tabs while simultaneously pushing it away from the Bezel Molding.
4. Once the Display Lens is removed, put aside for reattachment later. Be careful to not damage the display.
5. Remove the Bezel Molding by gently pressing in each of the 4 locking tabs (2 per side) while pushing it away from the metal frame.
6. Reverse the order for installation, taking the following precautions:

   a. Make sure the button key mat is positioned properly on the front circuit board and without dust or debris on the button contact points prior to attaching the Bezel Molding.

   b. Make sure that there isn't any debris or fingerprints on either the display or back of the Display Lens prior to reattachment.

   c. Use a clean, dry, lint-free soft cloth to gently wipe the display or back of the Display Lens to clean if necessary. Never use cleaning agents as this can cause streaking or permanent damage to either part.



Keypad Disassembly / Assembly

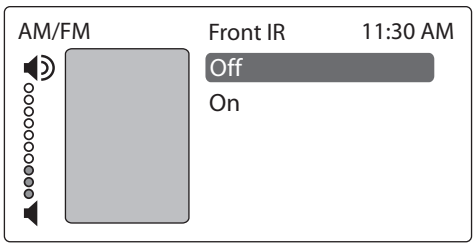
EXTERNAL IR CONNECTION

External IR Connection to MDK-C5 Keypad

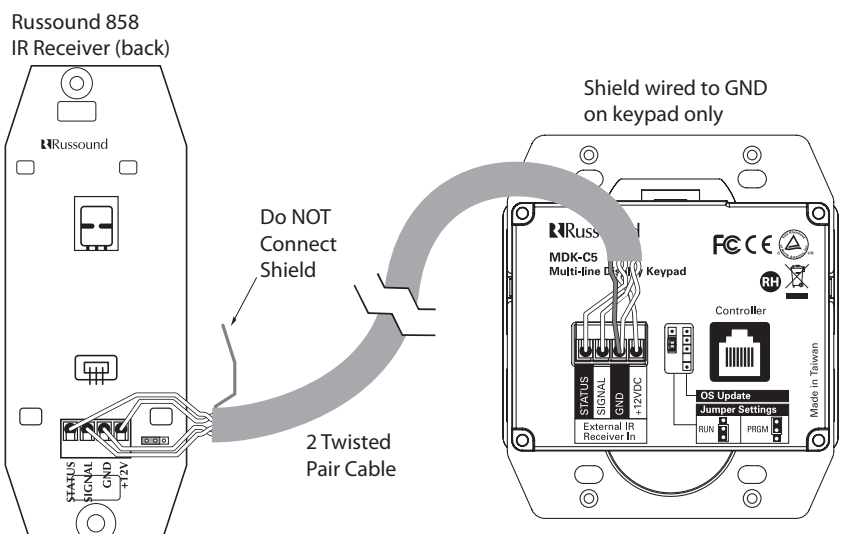
The MDK-C5 keypad has an External IR Receiver In terminal for connecting an external IR Receiver such as the Russound 858, SaphIR 862 Eye, or SaphIR 860 Phantom.

Use 2 twisted pair wire with one pair connecting GND (GROUND) and IR (SIGNAL) and the other pair connecting ST (STATUS) and V+ (+12VDC). Do not connect the shield to the IR receiver terminals.

If utilizing an external IR receiver, then you must disable the IR receiver in the keypad. This is disabled in the installer options menu on the keypad. See screen at right.



Disable Keypad IR



Connection of External IR to Keypad

Keypad Installation

For best viewing and usage, the MDK-C5 should be mounted at thermostat height, or about 58"-60" (1.5m) from the floor.

To install a double-gang keypad, you will need a UL/CSA approved plastic 32ci double-gang wall box. Attach the box to the wall with appropriate fasteners.

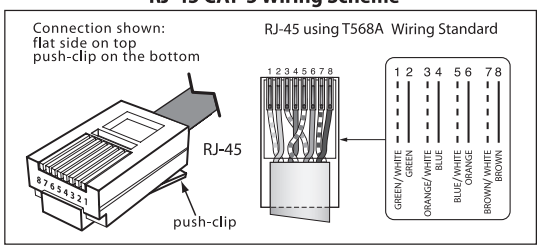
For installations employing a retrofit box or P-ring, the two foam spacers on the rear of the keypad's metal back plate can be removed for a better fit.

Route CAT-5e wire to the wall box from the controller. There should be not more than 250 feet of CAT-5e cable between the keypad and the controller.

Terminate the CAT-5e cable with an RJ-45 connector, using the T568A wiring standard. Insert the RJ-45 connector into the jack marked "Controller" on the back of the keypad.

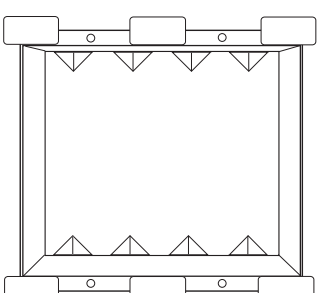
Mount the keypad in the wall box and attach the cover plate. Repeat the steps until all keypads are installed.

RJ-45 CAT-5 Wiring Scheme

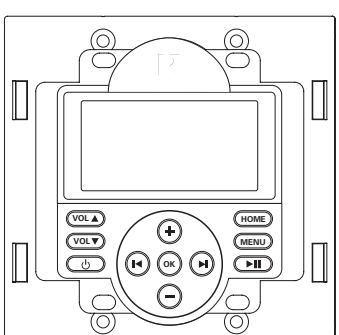


CAUTION

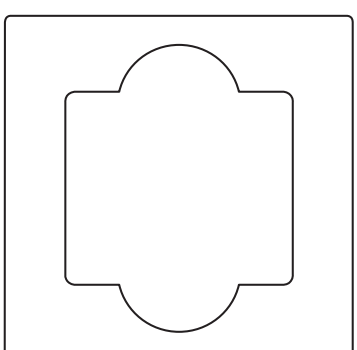
Mounting screws must be hand-tightened. Over-tightening the mounting screws can cause the buttons to jam and malfunction.



Double-gang wall box



MDK-C5 keypad



Cover plate

CONTROLLER / KEYPAD CONNECTION

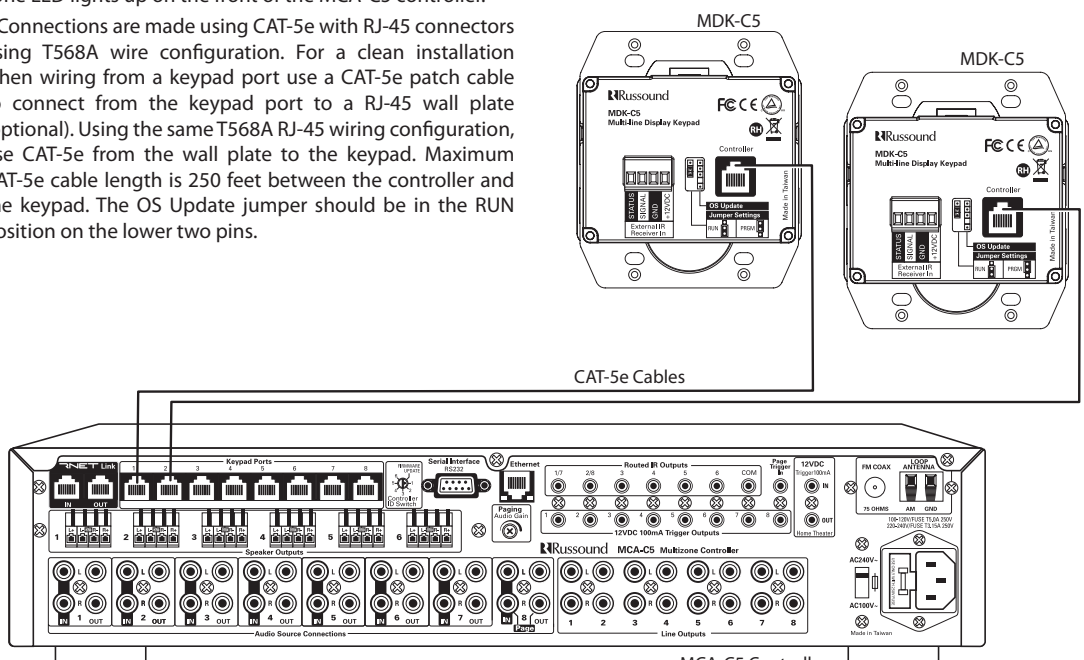
Controller / Keypad Connection

The MDK-C5 keypad is designed for use with the C-Series controllers, and connects to a keypad port near the top left on the rear of the controller. These RJ-45 ports support MDK-C5 keypads (and up to two UNO-TS2 touchscreens per controller).

The eight keypad ports correspond to the eight zones supported by the MCA-C5. When a connected keypad is powered on, the zone becomes active and the corresponding zone LED lights up on the front of the MCA-C5 controller.

Connections are made using CAT-5e with RJ-45 connectors using T568A wire configuration. For a clean installation when wiring from a keypad port use a CAT-5e patch cable to connect from the keypad port to a RJ-45 wall plate (optional). Using the same T568A RJ-45 wiring configuration, use CAT-5e from the wall plate to the keypad. Maximum CAT-5e cable length is 250 feet between the controller and the keypad. The OS Update jumper should be in the RUN position on the lower two pins.

If more keypads are desired for a zone, use an optional SA-ZX3 keypad splitter with a Russound 1201A (12VDC1A) power supply at the controller end. All keypads on an SA-ZX3 control the same zone. More detailed information regarding SA-ZX3 installation and operation can be found in its installation manual.



Keypad connection to the MCA-C5

MDK-C5 Keypad

Power requirements:	275mA @ 12VDC MAX
CAT-5e connection:	RJ-45 (T568A standard)
Display:	70 mm W x 35 mm H high resolution LCD
Controls:	Eleven backlit hard buttons
Wall surface dimensions:	4.5"W x 4.5"H (11.43 x 11.43 cm)
Inside box dimensions:	3.5"W x 1.5"D x 2.75"H (8.9 x 3.8 x 6.9 cm)
Weight:	1 lbs. (0.45 kg)

WARRANTY

The Russound MDK-C5 Multiline Display Keypad is fully guaranteed against all defects in materials and workmanship for two (2) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This Warranty does not cover:

- Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
- Power surges and lightning strikes
- Normal wear and maintenance
- Products that have been altered or modified
- Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed.

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to:

Russound
ATTN: Service
5 Forbes Road
Newmarket, NH 03857

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.

MDK-C5

Multiline Display Keypad
Russound User and Installation Manual

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